

## INSTALLATION GUIDE:



# Coolant Filter Kit

2011–2016 Ford 6.7L Powerstroke





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2) It is your responsibility to make sure your vehicle complies with all federal, state, and local emissions laws. Federal and many state and local laws prohibit the removal, modification or rendering in-operative of any part of the design affecting emissions or safety on motor vehicles used on a public street or highway. Violation may result in a fine of up to \$32,500 per vehicle (or possibly higher depending on changes in the law). All civil penalties and fines for removing your vehicle's emissions equipment are the sole responsibility of the end user.

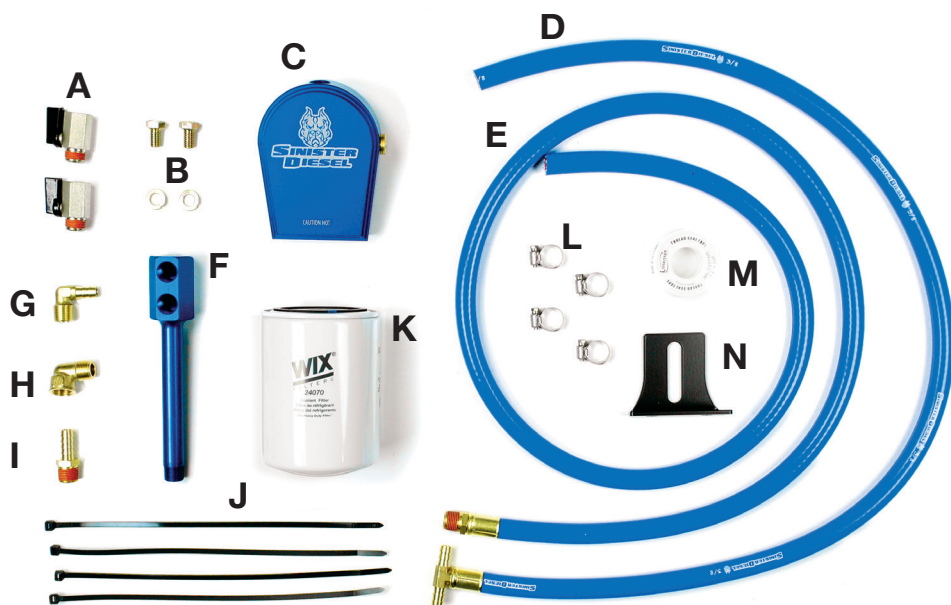
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PART:	DESCRIPTION:	QTY:
A	3/8" NPT Ball Valves	2
B	3/8" Bolts and Washers	4
C	Coolant Filter Block	1
D	48" Coolant Line	1
E	64" Coolant Line	1
F	Coolant Riser Manifold	1
G	3/8" 90 Degree Brass Barb Fitting	1
H	3/8" NPT 90 Degree	1
I	3/8" Straight Brass Barb Fitting	1
J	Zip Ties	4
K	Coolant Filter	1
L	Size 6 Hose clamps	4
M	Thread Seal Tape	1
N	Mounting Bracket	1

**IMPORTANT: READ ALL INSTRUCTIONS PRIOR TO INSTALL.** Prior to installation, please compare the parts that you have received with the bill of materials provided on this page to assure that you have all the parts necessary for the installation.



**CAUTION !!!** Never work on a hot vehicle. Serious injury in the form of burns can result if the vehicle has been in use. Allow vehicle to cool prior to installation. Always wear eye protection when working on or under any vehicle.

**IMPORTANT:** Installation of the Sinister Diesel Coolant Filter Kit requires cutting of the coolant lines, resulting in coolant loss. Due to the coolant loss, we suggest draining and flushing the entire system at this time.

- 1 On the driver's side bottom of the radiator open the petcock valve and drain the engine coolant system. There are about 7 gallons of fluid in the system. (Image 1)

**Note:** Placing ¼" hose onto the petcock valve will help keep the coolant from splashing.

- 2 Using thread seal tape on bare threads, assemble the coolant block as shown in image. Also install the mounting bracket with the provided hardware. (Image 2)

**Note:** Position the front valve at an angle to get easier access to it.

- 3 Install the coolant filter assembly on to the driver's side bumper support mounting locations. (Image 3)

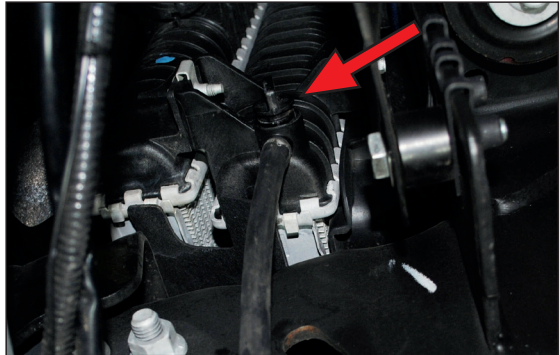


IMAGE 1



IMAGE 2

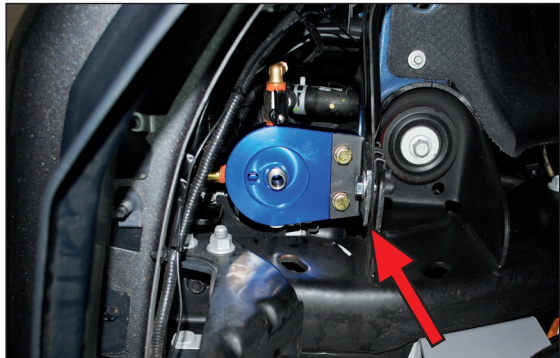


IMAGE 3



**Note:** On step four, a substantial amount of coolant will leak out.

**4** Using a 90 degree pick, release the retainer clip on the motor side of the upper radiator hose. The clip will not come completely off, disconnect the hose from the motor. The image shows the hose disconnected from the fitting. (Image 4)

**5** Disconnect the temperature sensor wire. Then, using a 19mm deep socket, remove the coolant temp sensor. (Image 5)

**6** Apply thread seal tape to the coolant riser manifold threads. (Image 6)

**7** Install the Sinister coolant riser manifold hand tight. Be careful not to cross the threads. Also push the clip back in place on the top radiator hose and reconnect the hose to the motor. (Image 7)

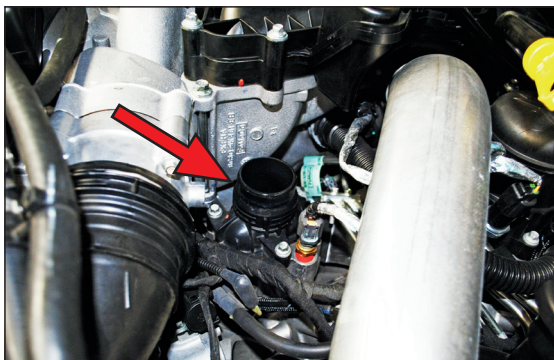


IMAGE 4

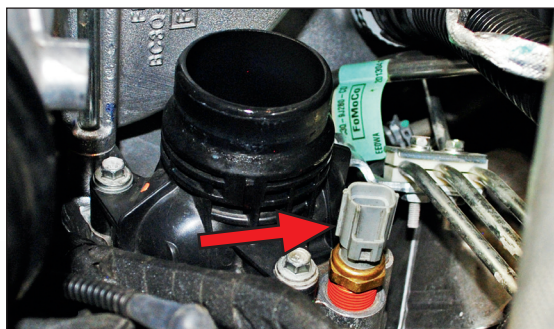


IMAGE 5



IMAGE 6

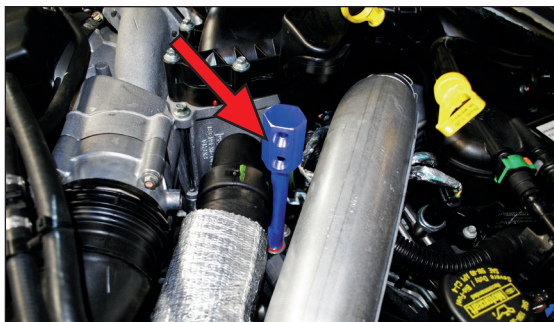


IMAGE 7

**8** Using an adjustable wrench, tighten up the riser manifold so that the threaded ports are facing the driver's front corner of the vehicle. Only tighten into position. Any loosening may cause coolant to leak at the threads. (Image 7)

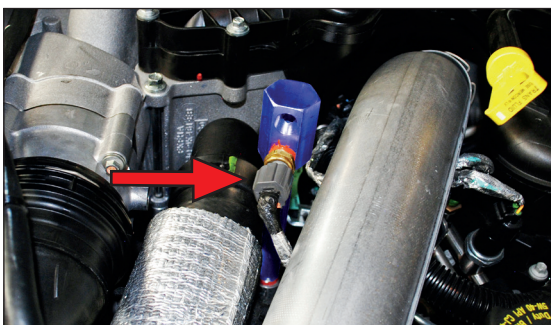


IMAGE 8

**9** Clean the threads on the temp sensor and reapply new thread seal tape.

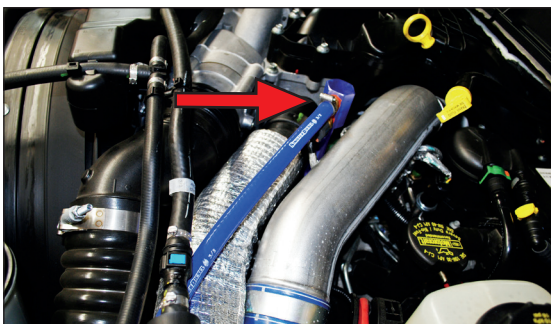


IMAGE 9

**10** Install the temp sensor to the bottom port of the riser manifold. Take precaution and support the riser manifold with a wrench when tightening the temp sensor or coolant hose. Reconnect the temp sensor. (Image 8)

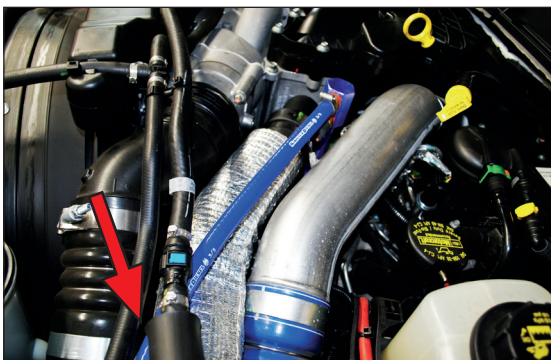


IMAGE 10

**11** Connect the coolant supply line to the top port on the coolant riser manifold. (Image 9)

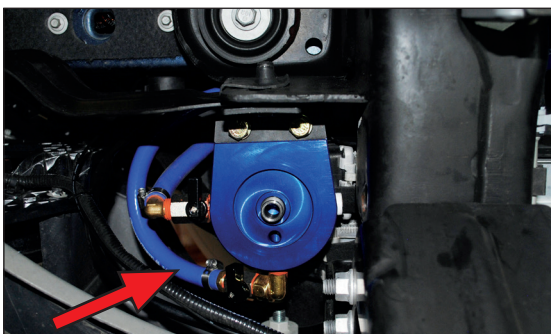


IMAGE 11

- 12** Route the Sinister Diesel coolant line down to the coolant filter block on the driver's side of the radiator. Take caution to keep coolant lines from contacting any moving or abrasive components. Connect the coolant supply line to the top of the coolant filter block. You may cut any excess hose to desired length. (Image 10&11)

**Note:** Use zip ties to secure the coolant lines at your preferred locations.



IMAGE 12



IMAGE 13

- 13** Route the Sinister Diesel coolant line down to the coolant filter block on the driver's side of the radiator. Take caution to keep coolant lines from contacting any moving or abrasive components. Connect the coolant supply line to the top of the coolant filter block. You may cut any excess hose to desired length. (Image 10&11)

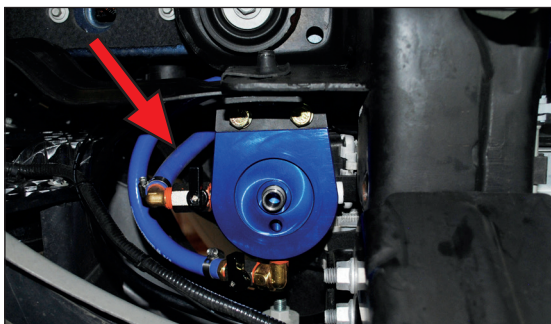


IMAGE 14

- 14** Feed the coolant return line down the driver's side of the radiator and connect the line using the supplied hose clamp. Again cut any excess hose to desired length. (Image 13 & 14)



- 15** Add a thin layer of petroleum jelly to lubricate the seal of the coolant filter. Then, fill the coolant filter with premixed coolant or distilled water to help reduce any air in the system.



IMAGE 15

- 16** Install the coolant filter onto the filter block and make sure the valve handles are in line with the valve to the open position. (Circled in image 15)
- 17** Refill the engine coolant system to factory specifications and check for leaks with the engine running and also warmed up.

**Your Sinister Coolant Filter installation is now complete. Be sure to check for leaks and top off coolant after the first few drives, then regularly after that.**



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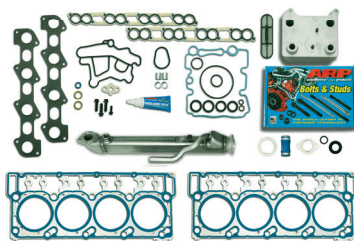


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